

"Showa retro" measurement instrument Bluetooth audio speaker

BSP Series Users Manual

BSP-10 / BSP-20 / BSP-30

This product is a speaker equipped with a built-in amplifier in the nostalgic exterior design of electronic measurement instruments manufactured by Kikusui Electronics back in the "Showa era". There are three types of products are available in the lineup which includes : Oscilloscope type (BSP-10), DC Power Supply type (BSP-20), and VTM (VacumeTube Voltmeter) so called "Valvol" type (BSP-30). You can enjoy music etc. wirelessly connecting with a Bluetooth devices such as smartphones and audio players. As a basic function, the DC Power Supply type is stereo playback (2 speakers), and the Oscilloscope type and the "Valvol" type are monaural playback (1 speaker). Each type has the adjustment knob of volume and tone. As additional functions, the Oscilloscope type has a display of sound level waveform, the DC Power Supply type has a display of volume level (LR stereo) and 5V / 0.5A power supply (USB outlet connector), and the "Valvol" type has a display of volume level (monaural).

Note: This product is not functional to be used as an electronic measurement instrument or power supply.

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FOR USE IN JAPAN ONLY
WARRANTY VOID IF USED OUTSIDE JAPAN

Cautions for safety

To use this product properly, carefully read the attached "Safety Information" before use. After reading, keep it in a place where you can find it easily. The following items are individually applied to this product as notes.

- User / use: This product is designed and manufactured for use of general households and consumers.
- AC input: Use the AC adapter as included as standard accessory.
- Grounding: No ground connection is required.
- Installed location (usable area): It can be used indoors of general housing area.
- When using this product, keep out of reach of infants and pets. It may cause injury when the part of this product is dropped or accidental ingestion by the part detached from this product.
- Disconnect the AC adapter from the outlet when this product is not used for a long term.
- This product is not waterproof. It may cause a malfunction when this product gets wet.

Notes on the Bluetooth

This product uses the 2.4 GHz bandwidth of radio wave. This bandwidth is used in various devices (such as microwave ovens and cordless phones) even in general households.

Therefore, when using this product in the place specified as follows, the transmission and reception may not be possible.

- A place where the magnetic fields, static electricity, or radio interference could be occurred in devices such as a wireless LAN using 2.4GHz or a microwave oven. (The electric wave may not be reached depending on the environment.)
- Use away from radio receivers. (It could be a cause of noise.)
- If noise appears on the TV, this product (and products compatible with this product) may affect to the antenna input terminals of the TV, video, BS tuner, CS tuner, etc. Install this product (with the device along with this product) away from the antenna input terminal.

<Note>

- Please note that Kikusui Electronics Corp. will not be liable for any damages arising from the use of this product unless legal liability is granted
- This product does not guarantee the operating error connected with any of Bluetooth devices.
- Please note that Kikusui Electronics Corp. is not responsible for any communication errors or malfunctions related to your connected devices.

<For Safety Use of this product>

- Do not use this product near the electronic device that handles high precision control or weak signals. Otherwise, it may cause malfunctions of the electronic device and cause an accident.
- In places where the use of equipment is restricted, such as in the aircraft and hospitals, it may affect to the electronic devices and medical electrical equipment, and may cause an accident.

Precautions for the example of electronic devices:

- Hearing aids, pacemakers, other medical electrical equipment, fire alarms, automatic doors and other automatic control equipment.
- If you use a pacemaker or other medical electrical equipment, confirm with the medical electrical equipment manufacturer or sales representative for the effects of radio waves.

<Certification to the Radio Law>

This product has been certified as a radio equipment for the low power data communication based on the Radio Law. Therefore, it is not required to acquire the radio station license to use this product. However, the following actions may be subject to punishment by law.

- Disassemble / Modification of this product.
- Remove the certification label attached to the product / delete the print or engraving of the surface.

About the Frequency Bandwidth

This wireless device uses the 2.4GHz bandwidth. The FHSS (Spread Spectrum) has been adopted as the modulation method, and the expected interference distance is approximately 10 m.

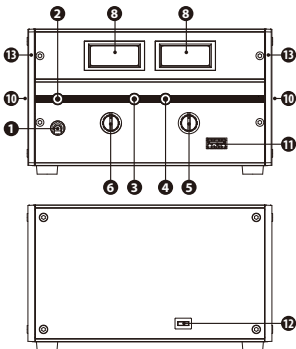
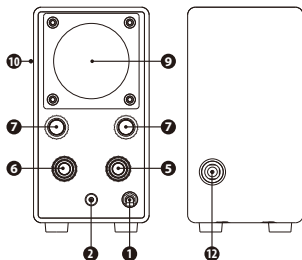
In the frequency bandwidth used by this product, the device may be operated in premises radio stations (radio stations that require a license) and specified low power used for industrial/ scientific / medical equipment such as microwave ovens, as well as mobile units used in factory production lines, etc. Radio stations (radio stations of which license is not required) and amateur radio stations (radio stations that require a license).

- Before using this product, make sure that your local radio stations that identifies of mobile units, specified low-power radio stations and amateur radio stations are not operating nearby.
- Should this product cause harmful interference to a premises radio station for mobile identification, immediately stop emitting the radio waves and contact our local service to avoid interference. Furthermore, please consult about measures (for example, setting of partition).
- In case you have any other problems such as harmful radio interference from this product to any specific low-power radio station for amateur identification or amateur radio stations, please contact our local service.

Descriptions and functions of each part

BSP-10 (Oscilloscope type)

BSP-20 (DC power supply type)



1 POWER switch

Power switch for this product. Turn the lever up to turn it on and down to turn it off.

2 LED lamp (orange)

(BSP-10/BSP-20) Lights when POWER on.

(BSP-30) Flashes according to the pairing status when POWER is on.

MEMO

When the POWER lamp is on, the LED lamp flashes 5 times with the start-up sound (approximately every 0.1 second).

3 LED lamp (red)

It lights on when the USB outlet is in use (connected with a device such as a mobile terminal device and current is drawn).

4 LED lamp (green)

When POWER is on, it flashes according to the pairing status.

5 VOLUME knob

Knob for adjusting the volume. Turn left to decrease the volume and right to increase the volume.

6 TONE knob

Adjust the type of sound source and the quality of sound to be played. Turn to the left when bass distortion occurs.

7 Dummy knob

It is an ornament on the design.

NOTE Do not force it. It may be damaged.

8 Volume indicator

Displays the volume output from the speaker.

NOTE Note: Analog meters are delicate electronic components. Please do not hit.

9 LCD display

Displays the audio waveform output from the speaker.

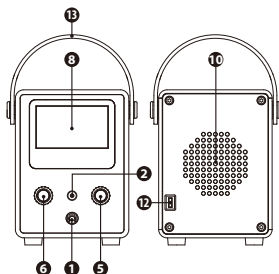
MEMO

This display can be changed by touching the panel. For details, refer to the attached "Touch Panel Operation Manual".

Accessories

BSP-10	AC adapter (cable length: AC approx. 1.8m/ DC approx. 1.6m), Users manual, Safety information, Touch Panel Operation Manual
BSP-20 BSP-30	USB AC adapter (cable length: approx. 1.5m), Users manual, Safety information

BSP-30 (Valvol type)



10 Speaker hole

This is the hole for the speaker sound.

NOTE Do not pierce the hole with a sharp object. The speaker may be damaged.

11 USB outlet

USB power supply connector (5V).

NOTE The maximum rated current is 0.5A. It may take some time to charge a smartphone.

12 DC INPUT

Power connector for this product. Connect the included AC adapter cable (plug) here.

13 Handle

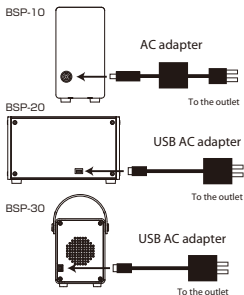
(BSP-20/BSP-30) It is an ornament on the design.

NOTE Do not lift by holding here. It may be damaged.

Installation (connectin power)

- Place this product on a stable surface.
- Connect the accessory AC adapter cable to DC INPUT on the rear panel.

NOTE Do not put anything on this product. Heavy objects may cause damage or malfunction.



Listening to the Bluetooth audio devices

This product can be connected to a smartphone, tablet, or Bluetooth-compatible audio device by wireless connection via Bluetooth to stream music.

To perform streaming playback using Bluetooth, first, "pairing" is required to recognize this product and a Bluetooth-compatible device. Once you have paired this product with your device, you do not need to pair again.

MEMO

The following operation explanation is an example. For details, see the instruction manual of the Bluetooth device.

<Procedure>

1. Place the Bluetooth device you want to connect around this product.
2. Raise the POWER switch lever (power ON) to put the unit into standby for pairing.

MEMO

The start-up time of BSP-10 is about 50 seconds.

Pairing standby status display

BSP-10	"Disconnected" will be displayed on the LCD panel. *For connecting procedure, refer to the "Touch panel operation manual".
BSP-20	LED lamp (green) blinks (every 0.5 seconds)
BSP-30	LED lamp (orange) blinks (every 0.5 seconds)

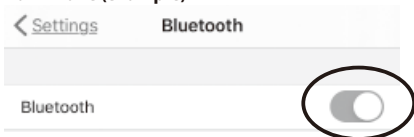
MEMO

When the power is on, the LED lamp will flash 5 times with the start-up sound (approximately every 0.1 second).

*BSP-10 excluded

3. Bluetooth Turn on the Bluetooth function of the device.

For iPhone (example)



4. Select the ID of the product displayed on the Bluetooth device screen of the Bluetooth device.

Product name

BSP-10	BSP-10-539
BSP-20	BSP-20-PAD
BSP-30	BSP-30-PV107

MEMO If there are multiple products, turn on only the device to be paired (turn off the other devices).

If the pairing of this product is successful, you will be notified as follows.

BSP-10	When the connecting process (Status display) is displayed on the LCD panel, the completion of pairing will be confirmed by the sound.
BSP-20	After the pairing completion sound, the LED lamp (green) flashes (Repeats two short flashes at 1.5 second intervals)
BSP-30	After the pairing completion sound, the LED lamp (orange) flashes (Repeats two short flashes at 1.5 second intervals)

MEMO During streaming of music, the light turns on for 2 seconds and turns off for 0.2 seconds.
*BSP-10 excluded

MEMO Since this product is adopted with "AUTO pairing" feature, so once the Bluetooth device has been paired, it will be automatically reconnected. In case of failed connection, turn on the power again (Firstly turn the power off, then wait for about 10 seconds, and turn on the power again).

5. Play audio on Bluetooth devices. The volume can be adjusted with the VOLUME knob on this product or the Bluetooth device.

The BSP-10 (oscilloscope type) allows you to make various settings on the color LCD screen by touching the panel. For details, refer to the attached "Touch Panel Operation Manual".



Trouble shooting

Symptoms	Check items
Can not turn on	Is the AC adapter cable (plug) disconnected from DC INPUT?
No sound / small	Are the volume settings of this product and the connected Bluetooth device turned down?
Intermittent sound / noise	Are you using a wireless device such as a microwave oven or Wi-Fi router nearby?
The setting information of the connected product is not displayed on the screen of the Bluetooth device	Are they paired correctly?
Can not connect to Bluetooth	Is the product and the Bluetooth device too far apart?
	When this product appears as a device in the Bluetooth settings of the Bluetooth device
	If the product is not visible as a device
Volume indicator does not work	Are the volume settings of this product and the connected Bluetooth device turned down?
LCD screen is not displayed (BSP-10)	Display settings may have been changed (the mode of waveform: OFF).
LED lamp (red) blinks irregularly (BSP-20)	Are you using USB outlet for charging your smartphone? (Especially when fully charged)

Countermeasures	
	Insert the plug correctly.
	Adjust the volume appropriately. MEMO In the case of Android devices, when playing at a loud volume setting that is higher than a certain level, the function to automatically lower the volume setting may work after 20 hours.
	Use as far as possible from wireless devices such as microwave ovens and Wi-Fi routers.
	Turn on the POWER switch of this product again (lower and raise the lever once) to put it into the pairing standby state.
	The maximum distance between this product and a Bluetooth device is 10 m. Move this product closer to the Bluetooth device.
	Delete the device registration once, and then pair again. MEMO If a device that has been registered once is nearby, it may be automatically reconnected first, and the device you tried to connect to may not be able to connect even though its name is displayed. In such a case, turn off the Bluetooth devices that do not require connection, or delete the connection registration before trying again.
	Turn on the "POWER" switch of this product again (lower the lever once, then wait for about 10 seconds to pull up the lever) to become the standby state of pairing.
	Adjust to an appropriate volume.
	For details, refer to the attached "Touch Panel Operation Manual" included with the BSP-10.
	The LED lamp (red) may blink irregularly when the current flowing through the USB outlet is very low. This is not a malfunction.

Specifications

Type	Oscilloscope (539)	DC power supply (PAD-L)	Valvol (PV-107)
Model name	BSP-10	BSP-20	BSP-30
Maximum output of amplifier	1.8W monaural	1.8W + 1.8W stereo	1.8W monaural
Power amplifier section method	Class D PWM method		
Communication method / modulation method	Bluetooth standard Ver.4.2 / FHSS		
Corresponding codec	SBC		
Corresponding profile	A2DP		
Compatible content protection	(None)	SCMS-T method	
Input terminal shape	DC JACK (ϕ 5.5-2.1)	USB Type micro-B	USB Type micro-B
Attached AC adapter output rating	12V · 5A	5V · 3A	5V · 3A
Toggle lever power switch	○	○	○
Variable volume	○	○	○
Variable sound quality (BASS)	○	○	○
Audio signal waveform display	○	—	—
L and R independent VU meter	—	○	—
Large VU meter	—	—	○
Power display	Orange LED		
Status (PAIRING) display	Displays on the LCD panel.	Green LED flashing	Orange LED flashing
Dimensions (excluding protrusions)	75W X 140H X 140D mm	172W X 97H X 112D mm	95W X 125H X 70D mm
Body weight (excluding accessories)	Approx. 550g	Approx. 600g	Approx. 400g
Ambient temperature	5 °C – 35 °C		
Ambient humidity	20% RH – 90% RH (non-condensing)		
Rated Power Supply	AC100V-120V, 50/60Hz (Use the adapter dedicated for this product * the maximum voltage and current will be varied depending on the rating of the AC adapter)		

Open Source Software

The BSP-10 contains open source software under the licensing terms of GNU General Public License (GPL), GNU LESSER General Public License (LGPL), and other licenses. For details, refer to the link below.

URL: <https://rddocuments.kikusui.co.jp/oss/bsp>

* Product specifications and designs are subject to change without notice.

Maintenance Care, disposal

Maintenance Care

Wipe the exterior with a soft, dry cloth.

If it is very dirty, wipe it off with a cloth dampened with a diluted neutral detergent.

Check periodically the AC adapter cable for disconnection or broken wires.

NOTE Do not use volatile substances such as thinner or benzene for cleaning.
Peeling of paint and exterior materials may cause deterioration.

Disposal of this product

If this product is no longer used, dispose the product to comply with the law of local government.

Caution There is a risk of electrical shock, never disassemble this product.

MEMO This product does not contain a rechargeable battery such as a lithium battery.

Contact information about products

Contact by the WEB

Please use an inquiry form in the following URL.

<https://www.kikusui.co.jp/en/contact.php>

Contact by E-mail

Please send your mail to the account specified below.

bsp-info@kikusui.co.jp

Warranty Certificate

This warranty certificate is valid only in Japan.

Model name	BSP-10 BSP-20 BSP-30 (Please mark the circle for the product your purchased)		
Serial number	(The Serial number can be found on the back or bottom of the product)		
Warranty period	Date of purchase	Month	Year
	1 Year from the Date of purchase (Please keep the receipt for proof of purchase date.)		
Customer	Address	ZIP code	
	Name		
	Phone number		

Provisions of Warranty terms

- During the warranty period, the quality is guaranteed only when this product is properly used. If there is a failure within the warranty period, the warranty service will be applied under the provisions of this warranty terms. Please contact our local representative where you purchased the product. And please present this warranty certificate when contacting our representative.
- The following cases will be chargeable for the repair even during the warranty period.
 - When there is no presentation of the warranty certificate.
 - When there is no data entry of the specified information in the warranty certificate, or any rewriting of information is recognized.
 - The cause of the failure is due to the improper handling of the product.
 - Due to the impact of shock effect to the product during the logistic transportation or rough handling of the product by the customer.
 - When the failure or damage were caused by natural disasters, pollution, abnormal voltage or other external factors.
- If it is determined that any modification or repair is conducted by the customer, the warranty repair within the warranty period shall not be applied.
- Kikusui Electronics Corp. shall not be liable for any direct or indirect damage resulting from the failure of this product or its use.
- Any cost incurred to the shipping or hand carrying of the product shall be borne by the customer.
- The warranty certificate will not be reissued, so please keep it in a safe place.
- The warranty is valid only in Japan.

KIKUSUI ELECTRONICS CORPORATION

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